

Cycling Supplementary Strategy Document



Contents

Section	Page
Executive Summary	3
1. Introduction	4
Transport Objectives	4
Cycling Strategy Vision	4
Document Structure	5
2. Context	6
Review of LTP2 Cycling Strategy	6
Relevant policy	10
Cycling England review of Slough (2007)	10
Current cycling trends in Slough	12
3. Challenges & Options	20
4. Cycling Strategy	26
Recommendations and Actions	26
 List of Tables	
Table 2.1 –Cycle flows and targets in the borough – 2005 to 2010	6
Table 2.2 – LTP2 Progress Summary	7
Table 2.3 – Cycle Schemes Implemented - 2006/07 to 2009/10	8
Table 2.4 – Average Annual Daily Traffic Flow Data (for cycle traffic in Slough in 2008)	12
Table 2.5 - Journey to work data for the Slough wards (2001 Census)	13
Table 2.6 – Permanent Cycle Counters AADT	14
Table 2.7 – Cycle flows in the Borough (2002 – 2011)	14
Table 2.8 – Primary and Secondary Schools Mode of Travel	15
Table 2.9 – KSI Cyclist Casualties (2005-2009)	15
Table 2.10 - Why do you not cycle more of your journeys?	17
Table 3.1 - Challenges and Actions to increasing cycling in Slough shown aligned against Slough’s adopted LTP3 objectives	21
 List of Figures	
Figure 2.1 – Cycle Accidents by Time of Day (Hourly)	16
Figure 2.2 – Most Common Causation Factors for Cyclist Accidents (2005-2009)	16
 Appendices	
Appendix A – Slough’s Existing Cycle Network	33
Appendix B - CTC Best Practice Guidance for LTP3	35

Executive Summary

This document sets out the role that cycling has to play in Slough for the LTP3 period. It includes a review of progress made during LTP2, and recommends the continuation of a number of existing activities, and the development of a new set. The document is informed by recent consultation including a survey among local cyclists, and some more general transport-related consultation among a wider cross-section of Slough residents. An assessment of the topography of Slough has revealed it to be one of the flattest towns in the country – with a similar topographical rating to Oxford and Cambridge – hinting at the potential for increasing the mode share of cycling if some of the other barriers can be overcome. These barriers include low levels of cycle ownership, the physical severance caused by the major east-west arteries of the A4 and the Reading to Paddington train line, and the cultural challenges posed by a large ethnic community whose take-up of cycling is traditionally very low. The research carried out among existing cyclists also shows that awareness of the Slough cycle map is relatively low, so efforts must be made to ensure that publications such as this are disseminated to the travelling public more effectively. The research shows that people in Slough currently cycle for a wide variety of journey purposes, and on a wide range of routes across the borough, some are formal cycle routes and others are not. Further, it has been found that people often use non-designated cycle routes (such as Langley Road) instead of a nearby, parallel designated cycle route, despite having to put up with higher traffic flows and conflict with motor traffic (as shown by the number of accidents involving cyclists). Such accidents could be due to speeding, hazardous road layouts, or the fault of the cyclists themselves (e.g. riding off the footway onto the carriageway, or without lights at night-time) but there is a clear need for greater understanding of such findings.

As well as the primary research mentioned above, this document also draws on the findings of a Cycling England 'SWOT' analysis which looked at all elements of cycling provision in the borough. A key recommendation was the need for some kind of cycling forum and/or local user group to provide SBC with feedback and suggestions for the development of new schemes and cycling issues generally. The list of names provided by respondents to the cyclist questionnaire will be an excellent resource to initiate such a group. Another major issue picked up in the SWOT analysis was problems with existing cycling infrastructure such as cycle lanes and off-carriageway cycle tracks. Efforts must therefore be made to ensure that the quality of any new facilities meets current best practice with a focus on the hierarchy of solutions and the need to minimise clutter and the impact on the 'streetscape'.

A list of cycling-specific interventions is provided in this document which ties in with the LTP3 objectives. These cover a broad range of issues including measures to: improve cycling skills (particularly among adults and the BME population); improve actual and perceived road safety for people travelling by bike; improve personal safety and tackle cycle theft; improve access between residential areas and recreational amenities within a cyclable distance; focus on the space efficiency of cycling (a standard traffic lane can carry 14,000 bikes¹ or just 2,000 cars per hour) to deliver a less congested transport system with associated positive impacts on the local economy; and to maximise the opportunities for expenditure on cycling initiatives through new development.

There is considerable potential for cycling to flourish in Slough. However, for this to happen, a more targeted approach will be needed, and efforts must be made to address both the physical and cultural obstacles in the borough which are detailed within this document.

¹ http://ec.europa.eu/transport/strategies/consultations/doc/2009_03_27_future_of_transport/20090326_ecf.pdf

1. Introduction

- 1.1 This Cycling Strategy Supplementary Document describes Slough Borough Council’s strategy for cycling, and is one of a family of documents describing the plans for specific modes and activities. The strategy draws on a number of sources of best practice, as well as specific primary research recently carried out among cyclists in Slough, and will be used to inform the Council’s third Local Transport Plan (LTP3).

The context for the development of this strategy is considered in Chapter 2, and includes a review of the main achievements of the previous cycling strategy along with progress towards targets. Chapter 3 investigates the main challenges and options relating to the wider uptake of cycling in the borough. The proposed new strategy is set out in Chapter 4, and includes a continuation of previous measures, along with a set of more focused additional activities to help achieve much higher levels of cycling in the borough.

Transport Objectives

- 1.2 Slough Borough Council has adopted the following objectives for the Third Local Transport Plan (LTP3):.

- To make sustainable transport options accessible to all
- To enhance social inclusion and regeneration of deprived areas
- To reduce the number of traffic accidents involving death or injury.
- To minimise the opportunity for crime, anti-social behaviour and terrorism and maximise personal safety on the transport network.
- To protect and improve personal health.
- To reduce transport’s CO₂ emissions and make the transport network resilient to the effects of climate change.
- To minimise the noise generated by the transport network, and its impacts.
- To mitigate the effects of travel and the transport system on the natural environment, heritage and landscape.
- To achieve better links between neighbourhoods and access to the natural environment.
- To improve the journey experience of transport users across Slough’s transport networks.
- To ensure that the transport system helps Slough sustain its economic competitiveness and retain its position as an economic hub of the South East; and
- To facilitate the development of new housing in accordance with the LDF

- 1.3 These objectives are outlined in further detail in Slough’s Core Strategy Document.

Cycling Strategy Vision

- 1.4 The following new vision for cycling has been proposed for the LTP3 period.
- “Promotion and development of cycling as a convenient, low cost, space-efficient, environmentally friendly, sustainable and healthy mode of transport with an aim to reduce reliance on the car for short trips. Cycling will become integrated within the transport network through the provision of quality infrastructure and other initiatives, whilst improving the safety and priority of cyclists throughout the borough.”

Top Level Ambition for Cycling in Slough

Slough has a topography, size and population density that could enable cycling to flourish – on paper, a mode share of over 10% would not be unrealistic. Some of the measures needed to

achieve such a mode share are set out below. It may be unrealistic in the short term but it is useful to consider what could be achieved given the budgets and the political will. Achieving a massive increase in cycling is not simply about investment in the mode – it would require restrictions on the motorised modes and reallocation of road space and signal timings in favour of cycling so that the car was no longer the default mode for short local journeys. Any such measures would obviously need wide support across officers and members in the council.

- The A4 to be considered for Cycle Superhighway style treatment. The Cycle Superhighways are Transport for London's (TfL) current ambitious approach to cycling infrastructure. This involves taking what are usually major roads in London (the equivalent to trunk roads) and providing on-road cycling facilities over several miles of route. Space is reallocated to provide cycle lanes with blue surfacing (advisory, mandatory or 'virtual'), junctions are altered to reduce conflict between bicycles and motor vehicles, and a massive publicity campaign accompanies the route's opening to ensure that the majority of residents and people working in the area are made aware of the route. This has the effect of creating a 'step change' improvement to cycling conditions resulting in a considerable increase in the amount of cycle traffic.
- All 30 mph roads to have their speed limits enforced.
- A town-wide bicycle supply programme using channels such as cycle hire, 're-cycle schemes', and internet forums for the exchange of second hand bicycles.
- Mass implementation of residential cycle parking, followed by weather-protected medium to long stay destination cycle parking (with an initial focus on the borough's railway stations).
- Borough-wide restrictions on free or very cheap (i.e. under £5 per day) commuter car parking
- Reallocation of carriageway space and signal timings to boost the safety, convenience, and relative advantage of cycle travel (over the motorised modes) around the borough for journeys.

Document Structure

- 1.5 In order to identify measures for inclusion in the cycling strategy, it is important to understand the background to cycling in Slough. This is covered in Section 2 (Context) which includes a review of the LTP2 cycling strategy document. Section 2 also focuses on the volume of cycling that takes place in Slough (according to all available data sets), an analysis of cyclist accidents, and a summary of recent cycling policies. Some of the key results from the 2010 Slough Cyclist Survey are provided along with those from the broader multi-modal consultation. Section 2 includes the key findings from a Cycling England 'SWOT' analysis which focused specifically on cycling in Slough.
- 1.6 Section 3 outlines the challenges to cycling in Slough. These are derived from general barriers identified nationally, and the results of the summer 2010 Slough cyclist survey. A table is included in this section that links the Slough LTP3 Transport Objectives with the challenges and barriers to cycling in Slough. This includes the proposed corresponding strategy measures (options) to help increase cycling levels in Slough over the period up to 2026.
- 1.7 Section 4 of the document contains the proposed Cycling Strategy itself which outlines numerous measures to increase cycling levels.

2. Context

Review of LTP2 Cycling Strategy

- 2.1 The Council's current Second Local Transport Plan (LTP2) runs for the period 2006 to 2011. The Cycling Strategy has been reviewed in terms of targets and aims for the LTP2 period, the outcomes, and any lessons that have been learnt to improve the next LTP3 strategy.

Performance against LTP2 Targets

- 2.2 The LTP2 strategy contained predictions of cycle flows at the SBC cycle count sites. These represent a relatively small sample of all the cycling that takes place. They therefore provide an approximate indicator of the amount of cycling that takes place throughout the borough. The predictions and actual flows are provided in Table 2.1. The LTP2 included targets to increase the number of trips in the borough by 13% between 2004/05 and 2010/11 from 2,072 to 2,340 trips per annum. The figures in Table 2.1 below are based around three-year rolling flows to give a more long term picture of changes in the amount of cycling taking place. They show that actual flows are a considerable distance behind the targets that were set. A new approach is needed for LTP3 that understands how the amount of cycling activity responds to different interventions, rather than a reliance on the impact of new infrastructure. It is thought that a greater focus on cycle ownership, as well as initiatives to remove the cultural barriers to cycling among the BME groups, will help to release the potential demand for cycling that a town with Slough's cycle-friendly topography and land use should be able to achieve.

Table 2.1 –Cycle flows and targets in the borough – 2005 to 2010

	2005	2006	2007	2008	2009	2010	2011
Actual flows (annual)	1,762	1,966	2,200	1,784	2247		
3 Year Rolling Average (<i>Actual</i>)	2,018	1,992	1,976	1,983	2077		
3 Year Rolling Average (<i>Target</i>)		2,068 (1.03)	2,120 (1.05)	2,173 (1.08)	2,227 (1.10)	2,283 (1.13)	2,340 (1.16)
Recorded flows relative to 2005 base year	<u>100</u> (base year)	<u>0.99</u>	<u>0.98</u>	<u>0.98</u>	<u>1.03</u>		

Cycle Training

- 2.3 SBC has applied for, and secured, 'Bikeability' funding for the last 3 years to subsidise Level 1 and Level 2 training for year 5 and 6 children (aged 9-11 mostly) in Slough schools. Level 1 involves playground, balance and coordination skills, to check the riders are safe to ride on the roads. Level 2 takes children into real road environments, teaching them how to ride safely with traffic. The course costs about £45 per child for Level 1 and 2, and the subsidy pays for £40 per child.

- The first year (2008/09) the Council received £10,000 which was all used (250 training spaces)
- The second year (2009/10) the Council received £15,000 which was all used (375 training spaces), but extra places were offered, some of which were given to youth groups or similar rather than just schools.
- The third year (2010/11) the Council received £20,000.

- 2.4 Bikeability² funding runs by financial year, and schools are expected to book the training themselves through the local trainers that the Council use. Parents pay a deposit to the trainers directly, and the Council are then invoiced by the trainers for the rest of the cost. The trainers are all professionals and handle their own risk assessments and health and safety. It is the duty of the schools to check this with them.
- 2.5 The Lottery paid for an additional 10 children from Godolphin Infant School to complete Level 1 training in 2009/10, and there is money available for schools involved with Bikelt to look at Level 3 training. Level 3 is a more specific course, usually one-on-one (or very small groups) to assist with hazardous junctions or specific routes.
- 2.6 Slough Borough Council in conjunction with Buckinghamshire County Council, funds a 'Bikelt' Officer post that coordinates cycling within schools. This is part-funded through Sustrans.
- 2.7 The majority of cycling expenditure has been targeted at implementing infrastructure over the last five years. Slough Borough Council needs to look to spend on 'soft' measures including training, promotion and cycle initiatives. This will be discussed in further detail later in this document.

Slough Borough Council LTP2 Progress/Achievements

- 2.8 A review of LTP2 was carried out in preparation for production of this strategy. The key findings from the review of the cycling strategy element are provided in the Table 2.2.

Table 2.2 – LTP2 Progress Summary

LTP2 task	Progress
Vulnerable road user audits to be carried out on all highway schemes.	Although a methodology was adopted from Oxfordshire County Council (OCC), it was a complex and time-consuming procedure and has not been used.
Better integration of cycling with public transport was proposed with improved access to the rail stations.	Little work has been carried out in this area, although the Heart of Slough project contains proposals to improve cycle parking at the main station forecourt. The proposal sets out to introduce a total of 40 cycle spaces.
A new responsive maintenance system for the notification of road/footway defects was due to be developed for LTP2.	There is also a national scheme for the reporting of potholes which affect people on bikes ³ .
There were plans for the transport team to work with others in the council to establish cost-effective cycle-theft reduction measures.	Cycle theft has been removed from the Thames Valley Police (TVP) priority list. Some simple analysis suggests that cycle theft rates in Slough are disproportionately high compared with London
Consultation (with the police, town centre manager, cycle and pedestrian groups etc) into allowing cycle traffic to use the pedestrianised part of High Street.	A formal consultation process has not been carried out. SBC is wary of this proposal having heard of examples of where allowing this approach has not been successful elsewhere.
A shortage of adult cycle trainers was identified in LTP2.	Limited progress has been made on this issue although child cycle training has been rolled out through Bikeability funding.
Before-and-after monitoring of new cycling schemes to be introduced.	There has been no progress on this specific aim. However, efforts have been made to incorporate monitoring locations into new routes in 2010/11.

² Further information can be found at www.bikeability.org.uk

³ The CTC co-ordinated 'Fill that Hole' website <http://www.fillthathole.org.uk/league-table> includes Slough - currently in 50th place, nationally, (as of 2nd September 2010 out of 212) in terms of the percentage of reported potholes which have been fixed.

Table 2.3 lists the eight schemes implemented in the LTP2 period (2006 to 2011). The plan included in Appendix A illustrates the existing cycle network in Slough.

Table 2.3 – Cycle Schemes Implemented - 2006/07 to 2009/10

Scheme Implemented	Year of Implementation
<p>Cumberland Ave/Northern Road - A355 to Stoke Poges Lane: Advisory cycleway</p> <p>Scheme consisted of removing the existing full width road humps and installing build-outs and speed cushions with advisory cycle lanes. The build-outs were not welcomed by residents and so these were later removed and replaced with speed cushions. The route connects Stoke Poges Lane and the Farnham Road but also provides a connection to the Cinder Track and the advisory cycle lane on Northborough Road.</p>	2006/07
<p>Route Q: Wexham Hospital to Upton Lea Schools - Walking Route (shared-use unsegregated)</p> <p>a 1.5km shared foot/cycle path linking the Hospital to nearby housing areas and four local schools (Wexham Secondary, Wexham Court Primary, Khalsa Primary and St Ethelbert's Primary). This route was developed due to the congestion on Wexham Road caused by the four schools. There is also a considerable amount of congestion in and around the hospital so the route aims to provide a suitable alternative to the car in allowing a safe and walkable distance to the hospital.</p>	2006/07
<p>Telford Drive to Keel Drive link to Montem Schools shared-use cycleway</p> <p>The route was put in to assist children at Montem School providing them with a traffic free and access through the playing fields. The scheme also provided a secondary route within the school grounds for a new access to the Keel Drive estate. The route provided connected to the existing Chalvey Grove and Telford Drive advisory lanes but also provided a crossing point to the Cippenham development and then on to Westgate School. Further improvements near to Westgate school consisted of improving visibility and altering the crossing points.</p>	2006/07
<p>Chalvey Mixed priorities (Advisory cycle lane)</p> <p>The advisory cycleway was introduced as part of a safety scheme to assist cyclists travelling through a very congested area. There are no links for this route at either end but near to the junction of High St, Chalvey there is a side road namely Newberry Way. This link takes cyclists to the very north of the borough and also provides a connection to the A4 shared-use path. The provision of this route has also made motorists more aware of cyclists. The route starts on Church Street near to the A355 and then continues in an easterly direction through High Street and Ragstone Road junctions before ending at the junction of Windsor Road. Here a new shared-use path is being constructed which will enable cyclists to get to the town centre.</p>	2007/08
<p>Route M: Baylis to Town Centre - Walking Route (shared-use)</p> <p>This route commences very close to the borough boundary and utilises the existing Cinder Track. The path has been resurfaced using Fibredec surfacing which continues in and through various parks. The route includes an upgrade to the subway including new Murals developed with Godolphin Junior school. New litter and dog foul bins together with new planting has been implemented to raise the image of the path. The path then continues to Slough station where the new station forecourt scheme will cater for cyclists and</p>	2008/09

pedestrians	
<p>Route Y: Slough Rail Station to Langley Walking Route (shared-use)</p> <p>This is a continuation of Route M that starts at the train station before continuing along the A4 upgraded dropped crossings and a new toucan/puffin crossing have been installed at the junction of the A4 and Upton Court Road. The route connects with Castlevue school and then continues to connect with Route 61 of the NCN before ending at the Jubilee River.</p>	2008/09
<p>Linear Park cycleway</p> <p>This route has taken the Council approximately 10+ years to deliver due to land issues and agreements. The scheme links with walking/cycling route W on Upton Court road and the route 61 NCN. The route is completely rural and provides an off road route to Colnbrook via the land owned by Computer Associates. The route was funded through Landfill tax as part of a section 106 agreement. The scheme involved purchasing land from a farmer gaining permission from the EA due to a watercourse running alongside the scheme and approvals from CA for opening the access to their land.</p>	2008/09
<p>Route J - introduction of a shared foot / cycle path in connection with a Safer Routes to School scheme along Long Readings Lane benefiting Beechwood Secondary School and Claycots Primary School; the route has been designed to reduce casualties and ultimately give the confidence to parents that there is provision for children to safely get to school whether by foot or by cycle. The route includes raised entry tables, upgraded crossing points new parking bays to discourage footway parking, a new variable 20 mph speed limit, new signage and a zebra crossing on a connecting road..</p>	2009/10

2.9 Slough Borough Council has undertaken the following initiatives to encourage the uptake of cycling in the LTP2 period (2006-2011):

- 2000 to September 2010 - Distribution of cycle maps at all libraries;
- 2003 to September 2010 - Promotion of Bike Week including public cycle rides;
- 2005 - Cycle map on website;
- 2006 to 2008 – ‘Big Green Day Out’ promoting cycling;
- 2007 to September 2010 – Bikelt programme introduced;
- 2008 - Distribution of cycle maps at My Council and Town Hall;
- 2008 to September 2010 - Promotion of “In Town without my Car” again promoting cycling;
- 2008/09 - New cycle map ;
- 2008/09 – New cycle map added to Slough website⁴ ;
- 2008/09 to September 2010 - Bikeability funding to promote cycle training for school children; and
- 2007 to September 2010 (ongoing) Britwell Bicycle Recycling – a partnership between SBC, Sustrans, and the Britwell Youth Community Project, to get local children involved in bike mechanic training. The bikes are used for cycle training for those who currently do not own a bike.

⁴ www.slough.gov.uk

- 2.10 To summarise, it is apparent from a review of the LTP2 Cycling Strategy that some of the proposed initiatives were not undertaken. However, the list above shows that there has still been a considerable amount of progress. Particularly successful initiatives include the cycle map (which needed to be reprinted with the year of its publication), Bikeability and 'Bike It' initiatives in the local schools, new covered cycle parking at the main railway station, and new infrastructure such as the 'cinder track' (Route Y) which appears to be attracting high levels of both utility and recreational cycling. The LTP3 strategy will need to ensure that cycle budgets are increased if considerable growth in the amount of cycling that takes place is to be achieved.

Relevant policy

- 2.11 There is currently no cycling strategy at a national level. However, there are a number of national policy initiatives in different sectors which relate directly to cycling. These are summarised in the paragraphs below.
- 2.12 The current set of DfT goals, as suggested by the previous Government focus on economic competitiveness; a reduction in carbon dioxide and other greenhouse gases; better safety, health and security; greater equality of opportunity; an improvement to quality of life, and the promotion of a healthy environment. The new coalition Government will be articulating its new transport strategy through a forthcoming White Paper.
- 2.13 The DfT's Active Travel Strategy⁵ states that "fewer cars and more pedestrians and cyclists can make the roads safer for all users". Recommendations include the built environment, more 20mph zones, promotion of cycling through schools and colleges, joint work with health sector, and cycle training.
- 2.14 Government health policy documents 'Be Active, Be Healthy'⁶ and 'Healthy Weight, Healthy Lives'⁷ both have the aim of increasing the number of people achieving recommended levels of physical activity.
- 2.15 In the education policy sector, an annual 'Sustainable Modes of Travel Strategy' must be completed by local authorities to bring about an increase in sustainable travel to school.

Local Area Agreements (LAAs)

- 2.16 Local authority performance is now monitored through Local Area Agreements– three year agreements with the Government. 35 targets are selected from 188 indicators. The next set are not due until after LTP3. Cycling is directly relevant to Indicators 6, 8, 47, 48, 55, 56, 57, 175, 176, 186, 198. Monitoring is still expected but not mandatory.

Cycling England review of Slough (2007)

- 2.17 Cycling England carried out a 'SWOT' analysis of cycling in Slough during the LTP2 period (findings were published in June 2007). Key infrastructural problems are summarised below. Slough BC comments, where relevant, are included in italics after each bulleted issue identified by Cycle England.
- The focus of cycling provision has tended to be on off-carriageway facilities – this does not conform to national guidance (relating to the hierarchy of measures).

There is a lot of off-carriageway provision but there are also many cycle lanes throughout the borough. However, these are usually narrower than the national recommended width of 1.5m, and are sometimes on roads which seemingly attract few cyclists.

⁵ <http://www.dft.gov.uk/pgr/sustainable/cycling/activetravelstrategy/>

⁶ http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_094358

⁷ http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_082378

- There is a feeling among officers that there has been too much emphasis on quantity rather than quality of cycle routes in recent years.
- The network has not been developed on the basis of demand and flows but represents what hangs together as a visually logical web of routes on a map, based on existing infrastructure and what could relatively easily be implemented.

This appears to be partly true. Recent consultation has found, for example, that (according to the sample of respondents who completed our questionnaire) many more cyclists use Langley Lane than the formal cycle route just to the north. However, some of the borough's cycle routes do attract a lot of use e.g. the A4 facilities and the 'cinder track'.

- There exists a good deal of clutter associated with the cycle facilities which detracts from the street environment, is costly to maintain and implement, and creates obstructions in off-road routes.

Some cycling schemes also seem over-engineered due to adhering too rigidly to guidelines with insufficient innovation.

This does appear to be the case particularly with the A4 shared use routes.

- An absence of before-and-after monitoring on cycle related infrastructure.

2.18 Information was also provided on the following problems which relate to 'culture and attitudes':

- A relatively high proportion of Slough's population comprises ethnic groups for whom cycling traditionally holds very little appeal, particularly as a means of transport, and specifically among women.

Recent consultation carried out was responded to by very few people from the BME groups despite being distributed at several key locations in the borough.

- A negative attitude towards cycling is that it is equated with poverty and lack of success. The following quote comes from a consultation exercise (not undertaken in Slough), "if I wanted to cycle to work, I'd have stayed in India."
- Poor enforcement of traffic laws is thought to be a problem e.g. the use of mobile phones whilst driving as well as speeding and parking infringements.
- There is a perception that bike theft is a problem deterring cycle ownership and use.

In recent research a simple comparison was completed between Slough and the London Boroughs, and Slough did appear to have worse rates of cycle theft.

- A relatively high proportion of children in Slough do not own bikes, attributed to a combination of socio-economic and cultural factors.

Recent consultation found cycle ownership also to be a problem among adults.

- Slough lacks a co-ordinated local cycle lobby group to help guide and support the Borough Council in its efforts to promote cycling.
- The Local Access Forum seems pre-occupied with pressing for off-carriageway provision for all non-motorised users including cyclists. This contravenes current Government advice. The LA Forum is not likely to be representative of Slough's utility cycling population.
- Failed to attract people to deliver cycle training.

This remains the case for adult cycle training but there has been a successful programme for school children.

- The shape of the urban area (long and thin) in Slough is not highly conducive to cycling. The three corridors of the A4, M4 and the main railway line present significant restrictions on north/south cycle movements.

2.19 A number of recommendations were made in the report. These include the following:

- Assess the standard of the existing cycling infrastructure.

- Review the wider, general-purpose road network to identify and improve deficiencies for cycle users.
- Carry out a cycle-parking needs audit for public areas and public transport interchanges
- Progress trial access for cyclists into the pedestrianised area of the town centre (refer to Cycling England website for best practice)
- Focus on developing infrastructure which provides advantages for cycle traffic, and is aesthetically pleasing from a streetscape perspective.
- Provide training for officers, members and term consultants in the latest thinking for providing for cycling.
- Cycle training – take advantage of Cycling England bursaries for the cost of developing a pool of instructors.
- Raise awareness among the Local Access Forum of the benefits of on-carriageway cycling particularly for utility journeys.
- Facilitate the establishment of a cycle users' support and advisory group to assist the council in identifying opportunities to encourage cycling.
- Consider a periodic cycle forum held every six months or so (as planned in paragraph 7.3 of the LTP2 Slough Cycling Strategy).
- Seek assistance from the CTC public transport technical advisor (currently Dave Holladay) on improving cycle parking at stations.
- Use 'Blackburn with Darwen' Borough Council research findings for advice on cycling among ethnic minority groups.

The Council has reviewed all of the CTC recommendations and have included the ones we feel are most relevant and useful in cycling strategy. These include proposals to initiate a cycle forum, and a review of the quality of the existing infrastructure.

Current cycling trends in Slough

- 2.20 This section outlines the main cycling trends for Slough from a range of sources. This includes an assessment by ward and by school, and helps to build a picture of cycling in the borough including comparisons with other towns and cities.

DfT traffic flow data

- 2.21 The Department for Transport (DfT) website⁸ provides what is possibly the most reliable source of cycle-flow data (although it is restricted to sites on the A-Road network). The data is for annual average flows, and is therefore generally much more reliable than ad-hoc traffic counts. Figures in the table below are for 2008, and were extracted from the website in June 2010.

Table 2.4 – Average Annual Daily Traffic Flow Data (for cycle traffic in Slough in 2008)

Location	2008 AADT (both directions)
A4 Upton, by Kedermister Park	326
A355 near Keel Drive junction,	161
A355 just south of the junction with the A4	161
A355 north of Northborough Road roundabout	111
A4 east of Dover Rd/Cippenham Lane crossroads	135
A332 Windsor Rd south of junction with Albert St	119

⁸ <http://www.dft.gov.uk/matrix/>

A4 between A332 and A412 roundabouts	146
A412 between canal and rail bridges	305

2.22 Most of the sites recorded daily cycle flows of between 100 and 200. This would translate to a peak-time, one-way, hourly flow of approximately 10-20. These flows are not insignificant although equivalent rates in towns with high levels of cycling are typically around 500-1,000 reaching as high as 5,000 – 10,000 in Central London. For more local comparisons, the higher cycle flows in Reading are between 500 and 700, Maidenhead 250-310, and Windsor, 370. The higher flows in Reading may be explained by the fact that Reading has a larger population and is a university town (where cycling tends to flourish). The central parts of Reading are, arguably, more cycle-friendly than Slough where the A4 acts as a major barrier. Additionally, Reading's BME population makes up a much smaller percentage than Slough's.

UK Population Census data

2.23 The UK Population Census remains the most reliable source of cycle flow data (participation is compulsory) although the only measure of cycling recorded is for the journey to work. However, commuting is the biggest single journey purpose for cycling so this is an excellent proxy of the amount of cycling that takes place in any given location. It should be noted that Census data is based on a 10% sample.

2.24 Table 2.5 shows that Slough had a slightly above-average number of cycle commuters compared with the national figure of 2.8%, although it is below the regional average of 3.1% (for the South East). Most of the wards had a figure of close to 3% with Kedermister and Wexham Lea close to 4%. Wexham Lea is close to the station and the town centre which could explain its relatively high level of cycling. N.B although based on a 10% sample, the 'total number' figures are factored up, so there was a total of 1,714 cycle commuters at the time of the last survey.

Table 2.5 - Journey to work data for the Slough wards (2001 Census)

Ward	Total number of cycle commuters	Percentage of cycle commuters (among employed residents of Slough)
Baylis and Stoke	142	3.3%
Britwell	135	3.5%
Central	120	2.7%
Chalvey	108	3.1%
Cippenham Green	143	3.1%
Farnham	138	3.2%
Foxborough	77	2.5%
Haymill	162	3.1%
Kedermister (Langley)	121	3.9%
Langley St Mary's	91	2.2%
Cippenham Meadows	128	2.4%
Upton	117	2.9%
Wexham Lea (north east of station)	168	3.9%
Colnbrook and Poyle	64	2.0%
Slough	1,714	2.9%

South East England		3.1%
England		2.8%

Slough Borough Council Permanent Cycle Counters

- 2.25 The table below summarises the 2007, 2008 and 2009 cycle counts from the four permanent sites in Slough. It can be seen that the AADT volumes for cycling decreased at three of the four locations between 2007 and 2009 although the site with most cycle traffic (217) registered an increase.

Table 2.6 – Permanent Cycle Counters AADT

Site No:	Location	2007	2008	2009
216	Bath Road (A4) East of Leigh Road	142	126	117
217	Bath Road (A4) West of Lansdowne Avenue	475	442	495
218	Kedermister Park	128	106	92
10	Lascelles Park	21	19	17

- 2.26 SBC's aims were to increase cycle trips by 13% between 2004 and 2011, from 2,072 trips to 2,340 trips per annum.
- 2.27 The LTP2 target is calculated by a three-year rolling average compared against the initial base year figure between 2002 – 2004.
- 2.28 In order to provide cycle flow data, video count surveys were conducted at a number of sites throughout Slough between 7am and 7pm over three consecutive days (Tuesday 29 June, Wednesday 30 June and Thursday 1 July 2010), at 15 minute intervals. The five sites with the highest number of cycle trips were identified and used to provide the average number of trips for comparison with the LTP2 baseline and projected target.
- 2.29 The results of the 2010 surveys, illustrated in Table 2.7 with previous years, confirmed that cycle trips continued to fall short of the projected targets.

Table 2.7 – Cycle flows in the Borough (2002 – 2011)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Actual	1,926	2,042	2,249	1,762	1,966	2,200	1,784	2,247		
3 Year Rolling Average (Actual)			2,072	2,018	1,992	1,976	1,983	2,077		
3 Year Rolling Average (Interim Target)					2,068 (1.03)	2,120 (1.05)	2,173 (1.08)	2,227 (1.10)	2,283 (1.13)	2,340 (1.16)
Index rating				100	0.99	0.98	0.98	1.03		

Index (2002 actual = 1.00) based on survey sites

Slough Travel to School Survey – January 2010

2.30 Table 2.8 illustrates the choice of mode by pupils attending primary and secondary schools across the borough. This shows that the number of pupils cycling to primary schools has remained consistent at 1% since 2008. There was a decrease from 4% to 3% in the number of pupils cycling to secondary school between 2008 and 2009, and it remained at 3% in 2010.

Table 2.8 – Primary and Secondary Schools Mode of Travel

		Car	C/share	Cycle	Walk	Bus	Other	N/a
2008	Primary	35%	3%	1%	49%	0%	2%	10%
	Secondary	34%	6%	4%	38%	10%	6%	2%
2009	Primary	37%	1%	1%	53%	0%	4%	4%
	Secondary	32%	5%	3%	36%	11%	11%	2%
2010	Primary	39%	3%	1%	55%	1%	1%	-
	Secondary	29%	7%	3%	50%	8%	3%	-

Recorded accidents involving cyclists in Slough

2.31 This section comprises a review of recorded accidents involving cyclists in Slough between 1st January 2005 and 31st December 2009 - five years of data. The total number of fatal, serious and slight cycle accidents recorded in the borough in the LTP2 cycle strategy period was:

- Fatal – 1;
- Serious – 27; and,
- Slight – 212.

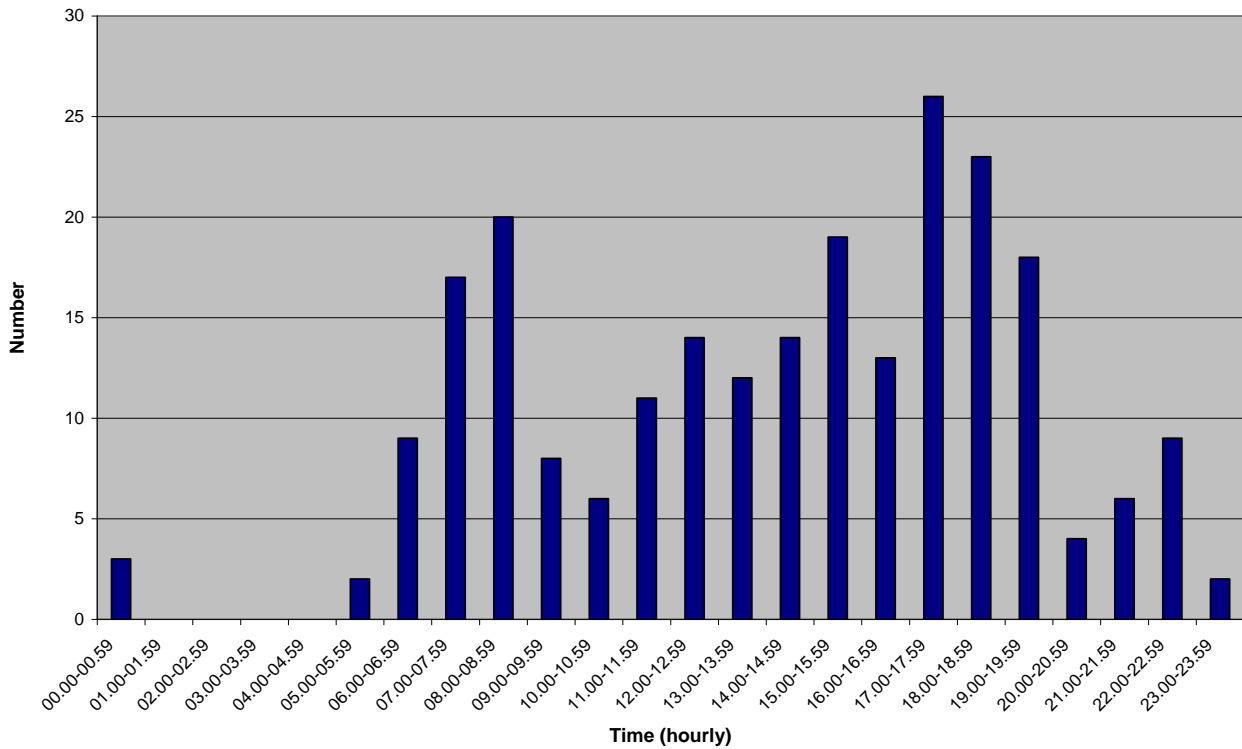
2.32 Table 2.9 reveals a similar number of 'killed or seriously injured' (the sum of fatal & serious accidents per year) casualties in 2005 as in 2009 with considerably higher numbers in the intervening years. The small number of KSI accidents makes it difficult to conclude, with confidence, that cycling is becoming safer. Cyclist accidents fluctuate year on year, and a vast number are never reported (although these would usually be in the 'slight' injury category).

Table 2.9 – KSI Cyclist Casualties (2005-2009)

2005	2006	2007	2008	2009
3	10	8	5	2

2.33 Figure 2.1 shows the time of the day when the reported accidents took place. The highest proportion of accidents occurred during the PM peak period (17.00-17.59) when there are higher volumes of both motor-vehicular and cycle traffic on the roads. The morning peak had fewer accidents than the evening peak. There were very few cycle accidents after 23.00 but this is also likely to reflect the small amount of cycle (and other) traffic on the streets.

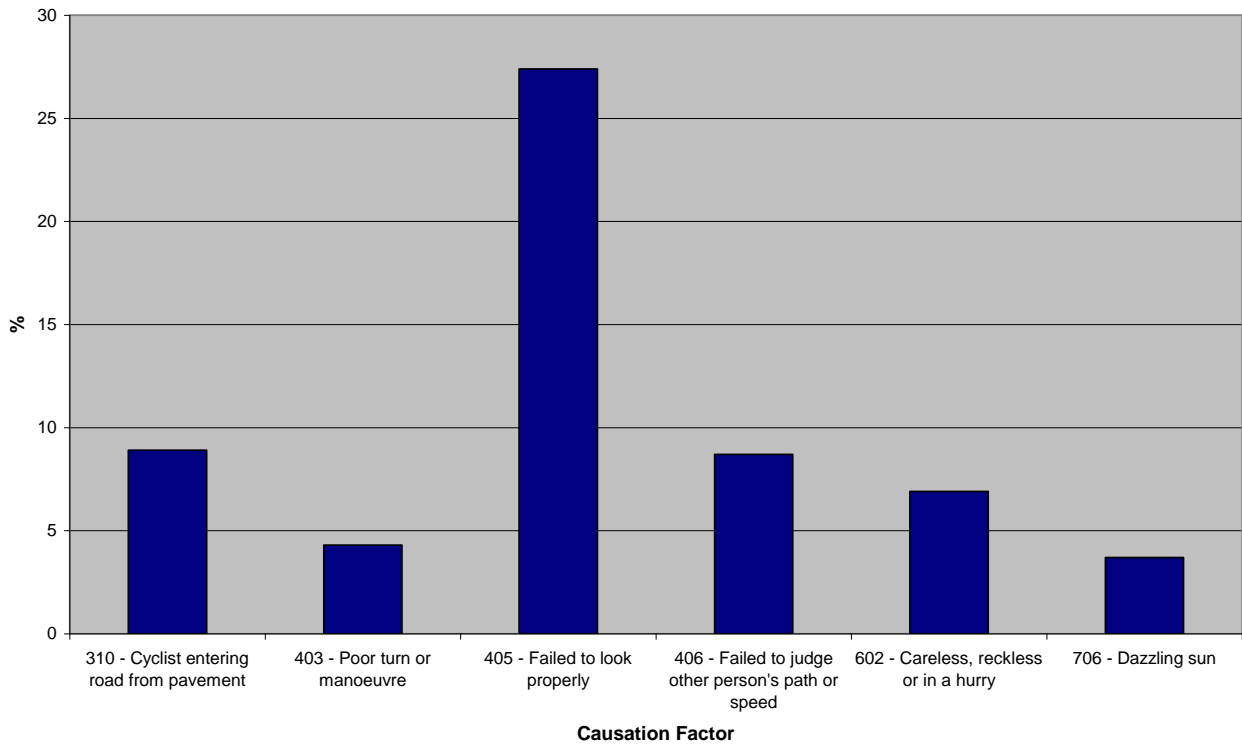
Figure 2.1 – Cycle Accidents by Time of Day (Hourly)



2.34

The most common causation factor attributed to accidents involving cyclists is 'failed to look properly' as shown in the Figure 2.2. Causation factors 403, 405, 406, 602 and 706 all relate to a motor vehicle in the main. However, factor 310 (cyclist entering road from pavement) would suggest that the cyclist is likely to have been responsible for these collisions (especially if the footway was not a designated cycling facility).

Figure 2.2 – Most Common Causation Factors for Cyclist Accidents (2005-2009)



Consultation

- 2.35 A combination of public consultations was undertaken (to assist with the development of a number of the LTP3 supplementary documents) to gather information from a variety of users and residents on their travel habits, experiences and issues within the Borough. Feedback received relating to current cycling habits, willingness of car users to try alternative modes of transport, and measures to encourage more cycling, has been used to influence the direction of the LTP3 cycling strategy.

Market Research Results

- 2.36 A total of 750 surveys were carried out by Wise Data Services split equally across three locations, the town centre, Brunel bus station and a number of SBC operated town centre car parks. The surveys were undertaken over a six day period in May 2010.
- 2.37 The demographics of the sample were broadly in line with the 2001 Census results regarding age although there was a slight over-representation of white male residents and an under-representation of Asian and Black residents.
- 2.38 The data illustrates that over 80% of trips made by bicycle were less than 3 miles in length, and none of the respondents travelled further than 5 miles by cycle.

Table 2.10 - Why do you not cycle more of your journeys?

Reason	Frequency	Percentage
Do not own a bike	235	31.9%
Distance generally too far	195	26.5%
Do not like cycling	64	8.7%
Takes too long to cycle	46	6.2%
Prefer to use my car	34	4.6%
Mobility problems prevent cycling	31	4.2%
Prefer to use public transport	28	3.8%
Do not feel safe cycling	18	2.4%
Don't Know	7	0.9%
Other	50	6.8%
Total	737	100%

- 2.39 Table 2.11 provides the answers from the market research respondents when asked why they do not cycle for journeys in the borough. This data highlights cycle ownership as an issue. It is also interesting to note how far safety concerns are down the list - this is usually considered to be one of the main barriers to cycling. Journey distance is a key factor. This may be due to exaggerated perceptions of how long it takes to make a journey by bike through an urban area, although it could also be an indication that many people travel further than a cycleable distance for their daily commute (i.e. more than five to ten miles). These factors are unlikely to be mutually exclusive e.g. some people who do not own a bike may also prefer to use public transport or have safety concerns about cycling. It is also worth noting that SBC policies should have a positive impact on some of these factors such as the aim to create local jobs for local people (thereby reducing commuting distances).

Cyclist Survey

- 2.40 A total of 91 questionnaires and maps were returned and analysed. Respondents were asked to mark the two journeys they made most frequently providing us with data on a large number of cycle trips. Whilst this still represents a fraction of the total amount of cycle travel in Slough, it is

an excellent evidence base on which to build proposals - very few other cycling strategies involve this extensive level of direct consultation with local cyclists. Respondents comprised members of the public who were handed a questionnaire whilst out cycling (or had one attached to their parked bike), members of the Slough Local Access Forum (LAF) and Freewheelers Group, other 'stakeholders' (large employers in Slough including O2 and Yellow Pages), and Slough Borough Council staff. A survey was posted on the intranet for staff to send their opinions / experiences on cycling in Slough.

2.41 The results were analysed and include the following findings:

- 70% of respondents' most frequent bicycle journey was for commuting, followed by recreational travel (9%), at-work travel (6%), shopping (7%), and visiting friends or relatives (4%).
- The main journey purposes for less frequent trips were recreation (28%), shopping (21%), visiting friends and relatives (17%), and commuting (17%).
- Most cycle trips were between 2 and 3 miles in length, and the average journey times was less than 20 minutes.
- The main determinant of route choice was directness followed by safety, with scenery and quietness the joint third biggest factors.
- The main navigational technique among the respondents was simply their knowledge of the local area. This was followed by the use of general maps, cycle signs, advice from friends and colleagues, the use of general traffic signs, and the use of the Slough cycle map. However, only 18% of respondents had a copy of the Slough cycle map, and the majority (65%) didn't know that there was one.
- 81% had not been involved in an accident when cycling in Slough – 19% had. Of the 18 *people* who had been involved in an accident, none was reported to the police, and one resulted in hospital treatment.
- Cycling appears to be heavily influenced by the seasons in Slough with just 25% of respondents stating that they maintain their cycling levels throughout the work.
- The gender split among respondents was 36% female, 34% male.
- The main age group among respondents was 40-49 followed by 30-39. The third biggest age group was 20-29 and 50-59, and most (95%) were from a white background.
- Respondents said that they would like to receive cycling information from the council by various means. The main single channel was the council website but lots of respondents said they would like printed information through the post as well as handed out directly to them whilst out cycling.
- Respondents were asked whether they had increased their amount of cycling recently. Of those who had, the main reason was for health or fitness (18 respondents), followed by changing jobs or moving home (7), to save money compared with motorised transport (6), and as a result of new infrastructure, or for environmental reasons (both were 2 each).

2.42 As part of the survey, the Council asked respondents for the routes they take most frequently when cycling through the borough. The plan (included in indicates how many cyclists follow each route providing a unique insight into the cycling that actually takes place throughout the borough (from our sample of respondents). Additionally, the plan illustrates the location of cycle accidents from 2006 to 2010. A number of observations and suggestions have been made from an initial analysis of the survey results, and these are outlines below.

- Langley Road appears to be relatively heavily used by cyclists, and there are also a high number of recorded cycling accidents. There is a formal cycle route a short distance to the north. Work is needed to establish why cyclists are not following the formal route (e.g. indirectness, poor signage, fears for personal safety) as well as the reasons for the high

number of accidents on Langley road (e.g. speeding, hazardous junction layouts, number of heavy goods vehicles etc).

- Stoke Road appears to attract a high number of cyclists and there have been several recorded accidents. Investigate measures to improve the route for cycling and include an analysis of the accidents.
- Wood Lane, Twinches Lane and Telford Drive appear to be an important cycling desire line (linking the Jubilee River to western parts of Slough). A number of accidents involving cyclists have also been recorded along here. Review this route for cycle-friendly improvements to infrastructure.
- Cinder track – our survey picked up a lot of cyclists on the northern section but many of them appear to cut across to the east to the north of the railway line e.g. along Baylis Road and Bradley Road. Many also continue along Belgrave Road where there has been a concentration of collisions involving cyclists. Review this route, which appears to form an important desire line into the town centre, and consider remedial work at the cycling accident cluster locations.
- Cycle flows (from our sample of respondents) remained high along the A4 to the western borough boundary beyond the end of the formal cycle route. Consideration to be given to extending cycling provision to this point, and liaising with the adjacent borough council to provide a continuous route into Maidenhead.
- Burnham Lane has a cycle route but there has also been a high number of cycling accidents (particularly in the area close to the Buckingham Avenue junction). Include this in any review of cycling accident clusters.
- Wexham Road has cycle lanes but appears to attract relatively few cyclists (possibly because it is impossible for cyclists to cross the A4 and reach the town centre). Consider ways of overcoming this barrier (which would also help pedestrians), and also study the cycling accident data along here – for a seemingly little used cycle route; there has been a high number of accidents.

3. Challenges & Options

- 3.1 This section explores the challenges to cycling in Slough drawing on the recent consultation results, as well as well established challenges known to the transport planning profession, nationally. It also sets out a set of options to address these challenges.
- 3.2 Slough Borough Council has developed 12 Objectives for the Third Local Transport Plan (LTP3) and are nested under Slough's five Sustainable Community Strategy themes. The challenges for the development of cycling in Slough, and potential options for measures to help encourage and promote the mode, have been compiled in a single document aligning the challenges against the objectives. Further information is provided on how these challenges affect cycling levels in Slough in Table 3.1 as well as linking with the LTP3 Transport Objectives and aligning with the Strategy Actions.

Table 3.1 - Challenges and Actions to increasing cycling in Slough shown aligned against Slough's adopted LTP3 objectives

Slough' LTP3 Transport Objectives	Problems / Issues facing Cycling	Cycling Strategy Actions							
		SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8
1. To make sustainable transport options accessible to all.	<p>There is a correlation, nationally, between income and cycle ownership. Low income households have much lower cycle ownership. This clearly has an implication for the accessibility of the transport network for people wishing to travel by bike. As well as low cycle ownership (flagged up in the LTP3 cyclist consultation), it is likely that an inability to ride a bike (or insufficient confidence to ride one on heavily trafficked roads) is also restricting accessibility to cycle travel. Slough's budget for training over the last three years has been received from Bikeability and has been used to train children of school age. Although welcome, no funds have been allocated towards adult cycle training. Relatively limited publicity material has been issued by Slough to promote and encourage the use of the bike in the borough. A walking / cycling map was produced in recent years illustrating the network although most cyclists (in the LTP3 consultation) were not aware of it. The Local Access Forum was criticised in the Cycling England review for having too strong a focus on off-carriageway and recreational cycle routes. A new forum group should be formed in Slough using the contact details from the respondents who provided their phone numbers or email addresses in the cyclist survey (totalling over 40). The LTP3 market research revealed that bus passengers have particularly low levels of cycle ownership, so information should be provided specifically to address this issue (e.g. promotion of bike shop locations, second hand bike exchanges, the Cycle to Work scheme, and Re-Cycle initiatives). Historically there has been an issue with cyclists using train services. The potential for combination of cycle and rail journeys has been increasingly recognised by the Government and rail industry, and Slough has an excellent rail service to many key destinations, most obviously London Paddington. Great Western Railways produce a leaflet to provide information on how to travel with your bicycle on their rail network. A copy of this leaflet can be found at the following website: http://www.firstgreatwestern.co.uk/Content.aspx?id=80.</p>	✓	✓	✓	✗	✓	✓	✓	✗

Slough' LTP3 Transport Objectives	Problems / Issues facing Cycling	Cycling Strategy Actions							
		SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8
2. To enhance social inclusion and regeneration of deprived areas.	<p>Slough has a very diverse multi-cultural population with almost 40% of the residents coming from a black or minority ethnic background. It also has an above average number of young people, with the number of people over 75 also set to increase considerably. 14% of the population has a limiting, long-term illness, and almost 4% of children are living in low-income households. 23% of residents do not have access to a car. There is a link between deprived areas and poor road safety – pedestrians and cyclists are often at greater accident risk in such places.</p> <p>Levels of cycling and cycle ownership are generally lower in deprived areas – there is also less of a cycling culture. This presents a challenge to making the bike an acceptable mode of transport for local journeys.</p> <p>Car ownership and use tends to be more aspirational, and can represent a higher status in the community.</p>	✓	✓	x	x	x	x	✓	x
3. To reduce the number of traffic accidents involving death or injury.	<p>Cyclists are categorised as vulnerable road users. Cyclist casualty figures in Slough for the last three years are as follows: 2007, 50, 2008, 49 and 2009, 47. This illustrates a slight decline in accidents year on year since 2007 although the relatively small number of makes it difficult to identify a definite trend.</p>	x	x	x	✓	✓	x	x	✓
4. to minimise the opportunity for crime, anti-social behaviour and terrorism and maximise personal safety on the transport network	<p>Motor-vehicle traffic dominates much of Slough's road network with high flows and speeds likely to be the main cause of conflict for cycle traffic. Theft of pedal cycles is relatively high in Slough – 291 in 2007/2008, 407 in 2008/2009, and 291 in 2009/2010. In London, cycle theft averages 221 per borough year. With an average London borough population of 220,000 and Slough's population of 120,000, the cycle theft rate per population appears to be considerably higher in Slough (although there is a small chance that cycle ownership may be higher in Slough). Concerns have been voiced over safety for elderly and visually impaired pedestrians, due to speed and behaviour of cyclists on shared cycle/footpaths. This highlights a challenge to educate existing cyclists to control speeds and be more aware of other users, as well as for designers to provide facilities which discourage this behaviour. The recent cycle survey has helped identify hazardous locations (including those that conventional accident data does not reveal). The survey results will be used to identify the most hazardous locations for cycling in Slough, and fed into the cycle (and/or safety scheme) prioritisation procedure. We may also be able to identify and sign lesser-known alternative routes to enable cyclists to avoid hazardous locations (as long as the alternative route is sufficiently direct). Cycling imposes much less of an accident risk to other users of the transport system than the motorised modes. Personal safety concerns may prevent people from following specific routes (often traffic-free paths), or cause them to avoid certain areas in the hours of darkness.</p>	x	x	x	x	x	✓	x	x

Slough' LTP3 Transport Objectives	Problems / Issues facing Cycling	Cycling Strategy Actions							
		SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8
5. To protect and improve personal health.	Slough has a below-average amount of cycling for the south east region (according to the 2001 census figures). The benefits gained from cycling can improve personal health considerably. Cycling England states that the 'Government's Foresight panel predicted that Britain will become a mainly obese nation by 2050'. This means that cycling has become more important than ever, especially as it can be incorporated into everyday life. According to the Community Strategy, Slough was the 115th most deprived locality in England (in 2007). The death rate in the Borough is higher than the national average - coronary heart disease (followed by all forms of cancer) is the largest cause of death. Childhood asthma is also a cause for concern. People from South Asian communities are up to six times more likely to suffer from diabetes, particularly Pakistani women. Cycling can play a role in addressing all of the above.	✓	✓	✓	✗	✓	✗	✗	✗
6. to reduce transport's CO₂ emissions and make the transport network resilient to the effects of climate change.	Travel in Slough is largely been dominated by private motor vehicles. According to the 2001 Census, over 32% of residents have access to two or more cars. In recent years, the majority of schemes have been implemented to reduce motor vehicle congestion and improve road traffic conditions.	✓	✓	✓	✗	✓	✗	✓	✗
7. to minimise the noise generated by the transport network, and its impacts	Noise pollution from road traffic is the most widespread source of noise nuisance and one of the most difficult to control.	✓	✗	✗	✗	✗	✗	✗	✗
8. To mitigate the effects of travel and the transport system on the natural environment, heritage and landscape.	Cycling has a minimal impact on the natural environment, heritage and landscape, although it does need to be well managed, particularly on recreational, off-road routes. This objective is linked to reducing CO ₂ and achieving a modal shift by encouraging cycling within the borough. SBC has an Air Quality Action Plan with two Air Quality Management Areas (AQMAS) already in place. Two new AQMAS are soon to be declared in the town centre. It should be noted that it is not only emissions from traffic in Slough that contribute to NO ₂ levels. Existing NO ₂ levels in the borough are well below national standards. A continued decrease in traffic flows should have a positive impact on an already acceptable position.	✓	✗	✓	✗	✓	✗	✗	✗

Slough' LTP3 Transport Objectives	Problems / Issues facing Cycling	Cycling Strategy Actions							
		SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8
9. To achieve better links between neighbourhoods and access to the natural environment	The Slough Community Strategy aims to encourage neighbourhood working through local area plans and neighbourhood charters. The LTP2 cycling strategy identified 26 routes in the borough with a programme of implementation based on their priority to the network. Despite the implementation of several of these routes, the amount of cycling has not increased in line with LTP2 targets. The routes, however, have not been well linked with each other or with housing land, public rights of way, schools, retail centres, and religious centres to create a permeable network. Barriers such as the A4 and M4 provide obstacles to cycle trips towards the Jubilee River and further afield to Windsor and the Windsor Great Park. There are a number of attractions and destinations within reach from Slough that are currently not connected to the existing network. The railway lines also present a considerable barrier to movement for non-motorised modes. The recent survey showed that many cyclists were accessing the area via a north-south route to the west of the town centre which has no formal cycling provision.	✓	x	x	x	x	x	✓	x
10. To improve the journey experience of transport users across Slough's transport networks.	The cycle routes implemented in the borough were identified in the LTP2 as priority routes but it was not always made clear as to whether they were aimed at commuters, recreational cyclists, children, other utility cyclists etc. Cyclists in Slough have different needs and requirements. At present these are not being fully addressed.	✓	x	x	x	x	x	✓	x
11. To ensure that the transport system helps Slough sustain its economic competitiveness, and retain its position as an economic hub of the South East.	Travelling to and from work is considered by many to be the most stressful part of their day, and stress is the second largest occupational health problem in the UK. In 2000 6.7 million working days were lost due to stress costing around £3.7bn. Research also shows that workers under high levels of stress have more accidents. Long hours of commuting, especially driving, can lead to: high blood pressure, risk of heart attacks, flu etc, increased anger and resentment at work; absenteeism and lateness; and an inability to concentrate. Cycling can help people to feel refreshed and energised at work. Physically active employees take 27% fewer sick days. Performance at work can be improved by between 4% and 15% when people engage in regular physical activity. On-site fitness programmes can reduce staff turnover by between 8% and 13%. Utility cycling can be incorporated into everyday life more easily than other forms of physical exercise such as going to the gym. Cycling is a space-efficient mode of transport. One conventional traffic lane can carry 14,000 bicycles per hour or just 2,000 cars. With typical peak-time car occupancies of 1.2, around six times as many people can travel by bike in the same space.	✓	✓	x	✓	✓	✓	✓	x

Slough' LTP3 Transport Objectives	Problems / Issues facing Cycling	Cycling Strategy Actions							
		SA1	SA2	SA3	SA4	SA5	SA6	SA7	SA8
12. to facilitate the development of new housing in accordance with the LDF	SBC has already established criteria in relation to sustainable developments. Car travel is a major source of pollution in residential areas. To address this issue, the need to travel should be minimised, and short local journeys should be switched from the motorised modes to cycling and walking. Higher density, mixed-use development can reduce the need for travel, make better use of existing urban space and infrastructure, and provide high quality residential areas.	x	x	x	x	x	x	x	x

4. Cycling Strategy

Recommendations and Actions

- 4.1 This section outlines the recommended measures and actions to be taken forward over the LTP3 period. The Strategy Actions have been grouped under the previously identified 'challenges' titles to link with the set of actions. It should be noted that each of the Actions outlined below should positively impact on cycling levels in the borough of Slough. However, as a consequence of funding / budgetary constraints, it may be advisable to prioritise those deemed to have a greater impact in ratio to cost. Actions outlined at the beginning of each section and highlighted in green indicate that these are currently being undertaken by the Council through the LTP2 and should continue for the LTP3 period.
- 4.2 Information regarding timescales and approximate costs for each Action below will be outlined in the 'Implementation Plan' in Section 5. The plan will also identify short, medium and long term interventions to help achieve the Strategy Actions.
- 4.3 Each Strategy Action has been linked to the overall Transport objectives for the LTP3, as outlined in Section 1 of the Strategy document.

Strategy Action 1 - Integration, Permeability and Interconnectivity

Linked to Slough' LTP3 Objective(s) - 1, 2, 5, 6, 7, 8, 9, 10

SA1.1 – The Council will encourage and promote the link between cycling and rail. Improved cycle parking at the train stations will be a policy priority.

SA1.2 –The Council will adopt a strategic approach to improving cycling links in the Borough, Slough's Accessibility Strategy (which is a sister document to this Walking Strategy) has identified the following key services and other attractions in the borough, namely:

- Slough Town Centre (incl bus and rail station)
- Slough Trading Estate
- Primary and Secondary Schools
- Higher Education establishments
- Wexham Park hospital
- GP surgeries
- Community Centres
- Leisure Centres
- Parks and open spaces
- Food shopping
- (Langley and Burnham rail stations⁹).

Improving cycling permeability to and from these places will be a core element of this cycling strategy. LTP budget cuts will have an impact on the ambition to enhance all these links and so any programme of improvement will need to be prioritised into high, medium and low priority, based on a 'needs-based' assessment.

This could be based on the approach used by the London Borough of Hackney which has the highest levels of cycling in London. This involved the council mapping all the physical and legal

⁹ Not included in Accessibility Strategy, but will also be included in the Cycling strategy

restrictions to cycling across the borough – one-way streets, road closures lacking cycle gaps, banned turns, etc – and remove them so as to restore hundreds of lost route choices’.

Initial focus should therefore be to build on the success of the Slough High Street scheme with the wider Heart of Slough scheme. This will see improved links between the rail station and the new bus station, and the removal of the Brunel roundabout (including the replacement of subways with surface-level crossings)

Remaining LTP3 budgets should then be invested into improving the other links, starting with the highest priority. Annual programmes will be devised once full budget are known.

The level of ‘need’ will be determined through audits, as this will help to assess the quality of the cycling environment,

SA1.3 – The Council will seek greater integration with the adjoining local authorities to ensure opportunities are taken to facilitate inter-borough trips e.g. cycle commuting between Slough and Maidenhead. Cycling is a practical commuting mode for distances up to 10 miles. An improved route between Slough and Windsor would also be likely to attract high levels of use due to the tourism attractions of Windsor, and the attractive, traffic-free routes to the north and west of Eton. Greater connections should also be made with the excellent Jubilee River recreational routes. The Council will also carry out a feasibility study into providing a Cycle Superhighway style facility along the A4 to create a direct, high-profile commuter cycle route along the borough’.

SA1.4 – The Council will use marketing materials to promote and encourage the use of the cycle route connections between residential areas, green/open spaces, and the rights of way network.

SA2 – Demographics

Linked to Slough’ LTP3 Objective(s) – 1, 2, 5, 6

SA2.1 – The Council will undertake initiatives, similar to the examples provided on the Cycling England website¹⁰, to promote cycling among the black and minority ethnic community. These are featured in the ‘Reaching People Who Are Less Likely to Cycle’ advice note and include an example from the Netherlands where a programme offers cycle training skills to recent immigrant women. There are also examples from the UK including the Southall Transport Exercise Project where Health Authority Funding was used to provide Asian girls at a local school with on-road cycle training.

SA2.2 – The Council will develop specific measures for increasing the uptake of cycling in deprived areas. Cycling in these areas should be promoted as a low-cost independent mode of transport well suited to those who do not, or cannot, drive including children, people on low income, and older age groups. Any improvements introduced for residents within the ‘socially excluded’ groups will also assist those within the larger ‘included’ community. These measures, however, will be covered by other categories such as Cycle Ownership and BME interventions.

SA3 - Cycle Ownership

Linked to Slough’ LTP3 Objective(s) – 1, 5, 6, 8

SA3.1 – The Council will take a specific focus on cycle ownership and investigate proven initiatives to increase ownership within the borough.

SA3.2 – The Council will investigate the feasibility of a cycle hire scheme with docking stations in places such as the town centre, rail stations, Wexham Park Hospital and SEGRO (Trading Estate).

¹⁰ http://www.dft.gov.uk/cyclingengland/site/wp-content/uploads/2008/12/sm13_reaching_types_of_people_who_are_less_likely_.pdf

The Council will seek to facilitate the exchange of second hand bikes by increasing the profile and scope of the Britwell Recycling Centre, and will also seek to increase the availability of the Government's Cycle to Work scheme among the borough's employers.

SA4 – Safety

Linked to Slough' LTP3 Objective(s) – 3

SA4.1 – The Council will identify hazardous cycle locations and analyse them along with recorded cycle accident data to provide a more comprehensive picture of the locations where remedial action is most urgently required and should be prioritised. The Road Safety Supplementary Document ¹¹ will be used to help inform the decision making.

SA4.2 – The Council will give recognition to the 'safety in numbers' concept¹² which shows that, as levels of cycling increase, accident rates (and, often, absolute accident numbers) decrease. The policy implication of this concept is that one of the best ways to improve safety for cyclists is simply to encourage greater use of the mode.

SA4.3 – The Council will highlight that cycling can have a positive impact on the social safety of walking by enhancing natural surveillance, particularly on traffic-free routes. This factor should be taken into account when decisions are made about allowing cycling in areas where it is currently excluded e.g. the High Street.

SA4.4 – The Council will encourage and facilitate a mode switch to cycling as it recognises that cycling is an important means of reducing the frequency and severity of casualties that the transport system, as a whole, causes.

SA4.5 – The Council will develop policies to address the personal safety of cyclists.

SA5 - Marketing / Education /Training

Linked to Slough' LTP3 Objective(s) – 1, 3, 5, 6, 8

SA5.1 – The Council will continue to apply for Bikeability funding on a yearly basis to provide training to children of school age in Slough.

SA5.2 – The Council will establish a means of communication (e.g. a forum or a campaign group) between SBC and people who cycle in Slough. Such an organisation will help to foster a stronger cycling culture in Slough, and provide SBC with some much needed user input as schemes progress through the design process from feasibility to implementation.

SA5.3 – The Council will undertake an initiative to specifically attract bus passengers to switch modes to the bike. Facilitating a mode switch from bus to bike will address a large number of local issues such as improving long term health, reducing air pollution, and reducing subsidies paid to bus operators, as well as increasing local residents' mobility, health and independence.

SA5.4 – The Council will develop a simple marketing strategy to ensure that cycling information (including, but not restricted to, the cycle map) is communicated more effectively than in the past. Hand-outs and mail-shots should be used along with email and websites. Consider a promotional campaign (e.g. "Slough Shrinks When You Cycle") which highlights the journey time (and other) benefits that can be achieved by switching to the bike for short local journeys. Cycling should be

¹¹ A sister document to this cycling strategy which will also be used to inform the LTP3

¹² http://www.ctc.org.uk/resources/Campaigns/CTC_Safety_in_Numbers.pdf

promoted as a higher status, more aspirational mode so that it loses the social stigma it attracts among some sections of the population.

SA5.5 – The Council will disseminate the updated copies of cycle map more effectively. Techniques used elsewhere include distribution to shoppers at busy times (e.g. Saturday afternoons) or providing them at doctor’s surgeries, cycle shops, train stations etc.

SA5.6 – The Council will explore opportunities for health-related funding for cycling schemes. The Council should increase contact and liaison with the Berkshire Primary Care Trust with regard to information sharing and health marketing promotions.

SA5.7 – The Council will introduce Bikeability training for adults. Previous attempts have failed but there is now a lot more support for this initiative, nationally, with an increasing pool of qualified instructors. This could be a particularly important element in promoting cycling among the BME groups. An initial scoping study would give an indication of the number of adults who may require (and be willing to participate in) a cycle training programme.

SA5.8 – The Council will develop marketing strategies, such as TfL’s ‘Share the Road’ campaign which can also be used to address anti social cycling (e.g. on non-shared-use footways, or not waiting at traffic lights). Like ‘Share the Road’, any campaigns should address the behaviour of people travelling by all local transport modes (cyclists are particularly vulnerable to the poor discipline of motorised mode users as well as pedestrians who, for example, do not keep to the pedestrian side of segregated paths, or fail to wait for the ‘green man’ at a Pelican crossing).

SA5.9 – The Council will develop a dedicated cycling website for Slough. This should be based on the excellent examples provided by the Cycling Demonstration Towns such as Aylesbury, Woking and Exeter, and act as a one-stop shop for all issues relating to cycling in the borough.

SA6 - Cycle Parking / Security

Linked to Slough’ LTP3 Objective(s) – 1, 4

SA6.1 – The Council will continue to require developers to include appropriate cycle parking in designs submitted to Slough Borough Council through the planning process.

SA6.2 – The Council will request the print cost of the Slough walking and cycling map from developers. This should be provided for each new dwelling in all sized residential developments to encourage and increase cycling in the borough.

SA6.3 – The Council will implement additional cycle parking in areas of high demand, with a particular focus on medium to long stay facilities (which requires a higher level of theft and weather protection than an exposed Sheffield stand). It is specifically recommended that space is provided for cycle parking on the ground floor of multi-storey car parks. It is recommended to firstly focus on the main public transport interchanges in Slough (with priority to Slough Railway Station) to provide enough parking to meet existing demand and expected increases. Double deck cycle parking racks are being increasingly used at stations in London including a 300 capacity facility which opened at Waterloo station in June 2010.

SA6.4 – The Council will introduce new initiatives to target and reduce cycle theft (identified as a particular problem in the borough). One possible interventions would include the phasing out Sheffield stands and replacement with the Camden ‘M’ stand which enables bikes (of all sizes) to be locked more securely. This could be prioritised for in locations where existing parking is not secure and uncovered.

SA6.5 – The Council will consider and investigate anti-theft initiatives - these could include the ‘marking’ of bicycles, training in how to attach a bicycle securely to a stand, and advice on which bike locks are best, as well as which bike types are least attractive to thieves (generally, non-mountain bikes).

SA6.7 – The Council will consider and investigate a cycle hire scheme which is another means of enabling people to cycle without the worry of cycle theft and increasing access to a bicycle.

SA6.8 - The Council will investigate opportunities to encourage 'short' cycle journeys involving visiting friends and relatives and shopping. Interventions could include the subsidised provision (and installation) of visitor cycle parking at residential locations e.g. cycle stands on driveways and in front gardens. Such a policy has been implemented successfully by a district council in Oxfordshire.

SA6.9 – The Council will set up a number of training days in local secondary schools and colleges to educate students about bicycle safety and marking techniques. This intervention should reduce the number of bicycle thefts in the borough. This idea will initially be developed through the SBC 'Bike It' officer who has direct experience of promoting cycling in the borough's schools.

SA7 - Cycle Routes / Infrastructure

Linked to Slough' LTP3 Objective(s) – 1, 2, 6, 9, 10

SA7.1 – The Council will continue, where appropriate, to request developer contributions to improve conditions for cycling or to contribute towards the implementation of new facilities.

SA7.2 – The Council will continue to design cycle facility schemes which meet the standards and direction outlined in the London Cycling Design Standards (LCDS) or any subsequent updates, as long as they are deemed applicable. Also, make use of the frequently updated Design Checklist on the Cycling England website. http://www.dft.gov.uk/cyclingengland/site/wp-content/uploads/2008/09/design_checklist.pdf

SA7.3 – The Council will undertake a review of existing cycle facilities, particularly the borough's cycle lanes which do not meet recommended minimum widths. Establish the potential to improve conditions for cycling through low cost measures such as widening the cycle lanes, providing feeder lanes on the approach to signals, using hatching to increase deflection on mini roundabouts and at other priority junctions.

SA7.4 – The Council will implement a cycle facility methodology for the borough to identify and prioritise routes.

SA7.5 – The Council will develop and implement a cycle and pedestrian audit procedure to ensure that the needs of the non-motorised mode users are considered in all highway schemes.

SA7.6 – The Council will undertake a feasibility study into allowing cycle access into the pedestrianised part of the High Street to boost cycle permeability.

SA7.7 – The Council will transfer the maintenance budget for the refresh of cycle markings or replacement of cycle facility signing to the cycling team from the highways maintenance section. This will allow minor modifications to be implemented more quickly than the current procedure allows.

SA8 – Targets, Consultation & Monitoring

Linked to Slough' LTP3 Objective(s) – 3

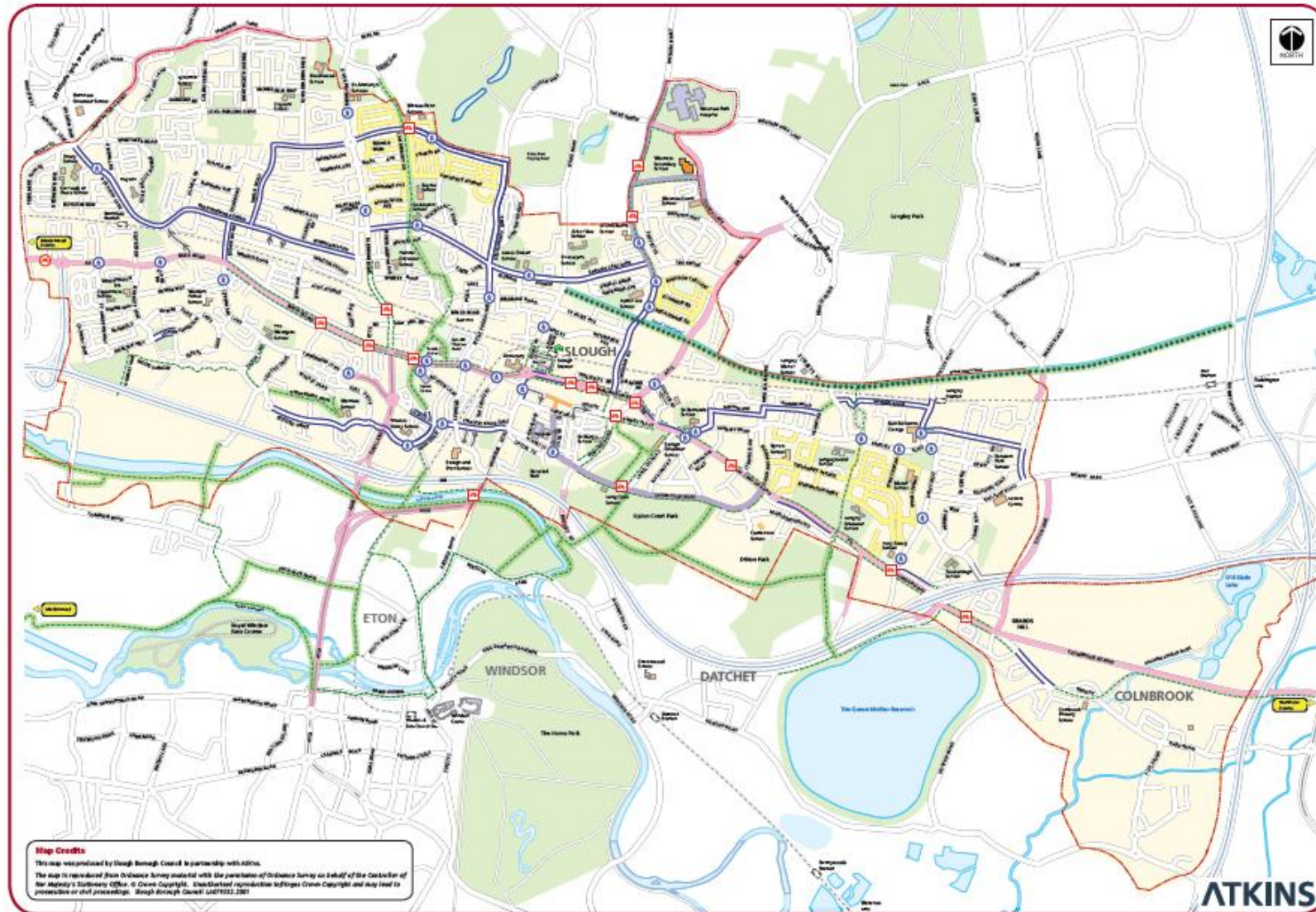
SA8.1 - The Council will introduce monitoring stations on major cycle facilities to record cycle flows. This will facilitate annual monitoring of cycle flows, and help to identify locations where cycle traffic increases are below expected levels.

SA8.2 – The Council will implement a process to introduce a cycle monitoring station as standard on all new cycle facility designs.

SA8.3 – The Council will undertake annual accident reviews involving cyclists and introduce a programme of prioritised improvements.

SA8.4 – The council will, in the first instance set up a Slough Borough Council Cycling Forum and, in the longer term, a Slough Cycling Forum (to include major employers, interested individuals and Council representatives).

Appendix A – Slough's Existing Cycle Network



Appendix B - CTC Best Practice Guidance for LTP3

Best Practice

The information presented in this section (unless otherwise stated) is taken from the guidance note published by national cyclists' organisation, the CTC, on how to produce a cycle-friendly LTP3 entitled 'Cycling - a local transport solution'¹³.

- *A commitment to cycling* – this should include recognition of the environmental, health and other benefits. There should also be links with road safety, planning and health policies, and recognition of the 'safety in numbers' concept which relates to the safety benefits that are derived simply from having a larger amount of cycle traffic on the local road network.
- *Infrastructure and the physical environment* – the key elements should comprise: easily accessible developments with cycle-friendly infrastructure and parking; cycle-friendly street and highway design in accordance with the hierarchy (and 20mph limits for urban streets); good cycle parking and signing; opportunities for (and promotion of) recreational and off-road cycling; appropriate highway/path maintenance practices.
- *Promotion of cycling* – this should include: the widespread availability of Bikeability; school and workplace travel plans; and marketing campaigns (including personal travel plans) and publicity.
- *Partnerships* – those identified include 'Local Strategic Partnerships' for links with health, business, education, public transport and the police, and voluntary sector/local community engagement (this could be in the form of a cycle forum).
- *Resourcing the plan* – this should include a commitment to allocate capital/revenue funding and staff resources, and should also ensure that staff are trained in cycle-friendly policy and planning.
- *Evaluation and monitoring* – a commitment should be made to substantially increase cycle use. Safety targets which are rate based should be established, and the monitoring of safety perceptions through Place Surveys (as specified by the Department for Communities and Local Government) is recommended. Suitable data collection and reporting mechanisms should be identified together with the resources required. Local authorities generally need to devote more attention to strengthening their cycling monitoring systems, and harmonising approaches nationally. Cycling Demonstration Towns have allocated around 5% of their budgets to 'project management and monitoring'.

Key principles of a cycle-friendly LTP

These are listed as: a policy framework for cycling; a quality environment for cycling; information, incentives and opportunities to try out cycling; partnerships (with schools, health, employers, PT operators and police); engaging communities and the voluntary sector in developing/monitoring local cycling strategy; resources; and targets, indicators and monitoring.

Policy framework

Local road safety strategies – the key issues are volume and speed of traffic, irresponsible driving, hazardous roads and junctions, and lorries. Cycle training, Smarter Choices initiatives, and a 'safety in numbers' approach can also help.

Health sector policies – work should be carried out with health trusts through the Local Strategic Partnerships. Links should be made between cycling and health, and travel plans provided for patients and staff. Cycling should be promoted as a healthy activity for patients.

¹³ http://www.ctc.org.uk/resources/Campaigns/1004_CTC_Cycling-altis_web_fin.doc

Planning policies – the Local Development Framework should include policies on reducing the need to travel, especially by motorised transport, and securing provision for cycling in all developments.

Cycling infrastructure and the physical environment

Design should be based on LTN 2/08 and the Design Checklist produced by Cycling England (including the hierarchy of provision). Professional cycling design training and audit procedures are needed and a simplified version (like Oxfordshire, Essex etc) should be considered. Cycle-friendly road maintenance standards are needed (10% of cyclist injuries result from poor maintenance).

Information, encouragement and opportunities to cycle

A range of measures are available including public awareness campaigns, travel plans (residential, employer, school, station), individualised marketing, Bikeability etc. These all fall under the banner of Smarter Choices which comprise two main groups: information, incentives and awareness campaigns; and, opportunities to try cycling.

The former includes advertising and promotional material e.g. TfL's 'Catch up with the Bike' campaign, maps and internet journey planners (www.cyclestreets.net), individual travel marketing (e.g. Sustrans' Travelsmart), incentive schemes ('cycle to work', mileage allowances, breakfasts, other school and workplace). Opportunities to cycle include school and workplace initiatives, cycle training, group or mass-participation rides, activities for specific groups (commuters, women, ethnic), and Bike Week or other cycling festivals.

Advice on resourcing the plan

Cycling Demonstration Towns invest approximately £14 per person per annum. In order to make cycling grow, funds allocated directly to cycling in the next round of LTPs need to increase substantially (by a suggested magnitude of three to ten-fold) compared with previous LTP allocations.

Proportion of spend on infrastructure varies but examples include Shrewsbury, 78%, and Bristol, 68%, (of a £28 million three-year budget)

Value for money – according to recent research, a £10,000 investment needs to generate just one extra cyclist per year (for 30 years) for monetised benefits to equal costs. Cycle training was found to have the highest cost-benefit ratio.

Main funding sources include the LTP block allocation, developer funding, EU regional development funds, lottery funds, and other sources. Non LTP funds can be a significant source– Sheffield received 45% from developer contribution and regeneration. However, non LTP funding is irregular, takes a lot of officer time to secure and manage, is delay-prone, and opportunities can be easily missed.

Increasing funds for cycling – mobilise other government funding streams e.g. health, education and rail based. Cycling supports many of these organisations' aims and could be more directly supported by them. Developer funds can be pooled and applied over a wide area. Gloucestershire's LTP2 strategy states that 106 contributions can be for infrastructure up to 5km from site.

Organisational arrangements

Local Authority Cycling Teams - Cycling England advocates that all local authorities should appoint a 'Member Champion' for cycling to take the lead in promoting all aspects of cycling, and that one or more senior officers should be nominated to support the Member Champion in this role. Lessons learned from London include: the need to allocate significantly more staff for cycling programmes (infrastructure and soft measures); the need to raise the understanding, motivation and technical capability of the wider local authority staff for cycling – through training, site visits, and involvement in cycle audits. For local authorities to really boost cycling, funding must be matched with increased staff and a higher profile – with a Member taking on the role of champion, a senior officer taking direct responsibility for cycling, and a dedicated team to support them.

Harnessing the voluntary and NGO sectors - organisations such as CTC, Sustrans and cycling campaigns can assist with: planning strategies and programmes, commenting on new scheme proposals, organising bike rides/promotional events, travel plans and BUGs, sports activities, and disadvantaged groups. These activities can be voluntary or grant-supported.

They can also act as stakeholders in scheme design and planning). Interactive websites harness local knowledge (e.g. <http://www.bristolstreets.co.uk>) and contain information on cycle routes, cycle parking, bus routes, road repairs, open spaces, and other subjects. Since its 2008 launch, 2,000 cycling-related comments have been posted. These include some useful suggestions, but staff time (for analysing the results) appears to be the main limiting factor at present.

Cycle forums - Exeter Cycle Forum meets every two months. Main participants are from highway authority, city council, Cycle Exeter team, cycling campaigners, and large employers. It acts as a communication channel between the bodies on the forum. They allow a two-way flow of information, important for developing cycling in a local area. Local highway authorities should establish and support cycle forums in each town in their area.

Evaluation and monitoring

The LTP3 guidance emphasises that good monitoring is an integral part of the LTP programme. Until now, main monitoring techniques have been: annual counts on selected roads; travel to school surveys (in travel plans); road casualty by type; and travel to work mode (national census). In addition, some authorities have done before-and-after surveys.

